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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/042,735

10/25/2001

Liat Tsoref

082/02329

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26418

7590

03/09/2004

REED SMITH, LLP

ATTN: PATENT RECORDS DEPARTMENT

599 LEXINGTON AVENUE, 29TH FLOOR

NEW YORK, NY 10022-7650

EXAMINER

JAWORSKI, FRANCIS J

ART UNIT

PAPER NUMBER

3737

DATE MAILED: 03/09/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

SN

Office Action Summary

Application No.

10/042,735

Applicant(s)

TSOREF ET AL.

Examiner

Jaworski Francis J.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Claim Rejections - 35 USC 102 and 35 USC103***

Claims 1-25, 27-29, 36-38, 40, 46 and newly presented claim 62 are rejected under 35 U.S.C. 102(e) as anticipated by Sarvazyan et al (US6468215, of record) as applied in the prior Office action or in the alternative under U.S.C. 103(a) as obvious over Sarvazyan et al in view of any one of Donskoy (US5895364), Levin et al (US2002/0162031) or Berger et al (US5806520).

Sarvazyan et al uses both longitudinal and flexural components of bone measurements to assess skeletal age. Col. 7 lines 22-40 defines the flexural portion as through the bone. Hence transmission is transverse to the bone in terms of emission-reception path as called for in the amended base claim 1 and therefore the reference remains anticipatory for the specific application reasons set forth in para 2 of the prior Office action as it pertains to these claims.. In the alternative, Donskoy is cited for its col. 1 teaching that flexural measurements mean across or transverse to bone and longitudinal means along bone. Hence, Sarvazyan et al are referring to 'across as well as along bone' and are compositing the two types of measurements in their analysis by virtue of this art-supplied definition. Alternative still, Levin et al which is directed to ultrasound measuring of skeletal age as a biometric for Internet access and therefore to a qualitative such measurement teaches col. 6 paras [0114 – 0120]. Finally, Berger et al is directed to measurement of skeletal maturation in neonates using transverse through- transmission with opposed transducer faces, see Col. 2 lines 11 – 22, whereupon it would have been obvious to adapt same for long bone scanning in

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Sarvazyan et al in order to accurately know the exact path distance which the ultrasound takes via this caliper style transducer separation setting.

Claims 49-51, 52-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarvazyan et al in view of Berger et al. It would have been obvious in view of Berger et al as discussed above to practice skeletal maturation testing as an extension of bone integrity and/or density ultrasound measurement by using facing transducer pairs since this allows callipering of the distance of the acoustic transmission path over which the measurement is conducted. The rejection rationale is otherwise as stated in paras 2 and 4 of the prior Office action regarding the respective claims.

Claims 26, 30-35 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarvazyan et al for reasons as set forth in para 4 of the aforementioned prior Office action.

Claims 41-45, 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarvazyan et al alone or further in view of Donskoy, Levin et al or Berger et al, as argued above, further in view of applicants' specification as discussed in paras 5-6 of the prior Office action. (Note claims 47- 48 were effectively addressed in the latter para.).

Claims 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarvazyan et al in view of Berger et al as discussed against claim 49 supra, further in view of applicants' specification as discussed in paras 5-6 of the prior Office action.

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Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sarvazyan et al in view of Berger et al as applied to claim 49 above, and further in view of Kaufman et al, for reasons set forth in para 7 of the prior Office action.

Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sarvazyan et al in view of Antich et al (US5197475). It would have been obvious in view of the latter to form ratios of through-bone velocities in order to characterize a bone integrity parameter, understood by Berger et al to include skeletal maturing akin to parameters such as assessed in Antich et al.

Response to Arguments


Applicants' arguments were considered to be unpersuasive because the base reference Sarvazyan et al uses 'flexural' language equivalent to description of transverse propagation. Additionally, the secondary references teach transverse measurement including apposed transducer measurement to determine status of skeletal maturation or actuation of the ossification process.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Jaworski Francis J. at telephone number 703-308-3061.



Francis J. Jaworski
Primary Examiner

FJJ:fjj

03-04-04